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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

LEE, JONG SUK

ART UNIT PAPER NUMBER

3673

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/061,861

Applicant(s)

CAMPBELL ET AL.

Examiner

Jong-Suk (James) Lee

Art Unit

3673

-- Th MAILING DATE of this communication appears on the cover sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-20 and 24-47 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 21-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. The amendment filed September 16, 2003 has been entered.

2. Upon further consideration, allowable subject matter as recited in claims 35-42 indicated in the previous office action mailed on June 16, 2003 has been withdrawn in view of the admitted reference to Davies et al (US 5,758,990). Therefore, the new ground of rejection based on the above-mentioned reference is as follows.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-10, 13, 14, 18-20, 24-27, 30, 31, 35-42 and 44-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Davies et al (US 5,758,990).

Davies et al discloses a riser tensioning device comprising of: at least one buoyancy element/buoyance can (16); a frame (24) comprising a plurality of vertical tubular members (14) externally disposed to the at least one buoyancy element (22) by enclosing the buoyancy member

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1 and a plurality of connectors (24) securing the vertical members to a riser stem pipe (12), the riser
2 stem pipe secured to a riser (18), the one or more connectors (24) having a radial arms (A) (see
3 Fig. 3) with a plate, the frame further comprising at least one horizontal bracing member (B)
4 external to the buoyancy member (16); one or more gas service lines (36) positioned within the
5 frame and enter the buoyancy can (16) (see Figs. 1-6; col.2, lines 23-67; col.3, lines 1-53; col.4,
6 lines 1-4).

7 Although Davies et al is silent with respect to the frame's structural function of carrying
8 loads exerted by external force, such as wave and/or current action in the water, it is believed to
9 be inherent that Davies et al's frame protect the riser from external loads of wave or current
10 action in the water while being in use.

11 Further, in the apparatus claim, patentable weight is not given to the merely functional
12 limitation, such as "the frame is constructed to carry loads exerted by external forces" in claims 1,
13 18 and 46.

14
15 ***Claim Rejections - 35 USC § 103***

16 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
17 rejections set forth in this Office action:

18 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
19 section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
20 such that the subject matter as a whole would have been obvious at the time the invention was made to a person
21 having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the

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1 manner in which the invention was made.

2 This application currently names joint inventors. In considering patentability of the claims
3 under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was
4 commonly owned at the time any inventions covered therein were made absent any evidence to
5 the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor
6 and invention dates of each claim that was not commonly owned at the time a later invention was
7 made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35
8 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).
9

10 6. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et
11 al in view of Johnson (US 4,477,207). The teachings of Bartholomew et al. have been discussed
12 above.

13 However, Davies et al fails to disclose or fairly suggest the buoyancy element being
14 syntectic foam. Johnson discloses a marine riser buoyancy assembly including a buoyancy element
15 (10) being made of syntectic foam (see Figs. 1-2; col.3, lines 40-64).

16 Therefore, in view of Johnson, it would have been obvious to one of the ordinary skill in
17 the art at the time the invention was made to replace the buoyancy can of Davies et al with the
18 syntactic foam material in order to reduce the manufacturing cost without having associated parts
19 for providing the air/gas supply to the buoyancy can of Davies et al.
20

21 7. Claims 11, 12, 28, 29 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable
22 over Davies et al in view of Marshall (US 5,447,392). The teachings of Davies et al have been
23 discussed above.

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1 However, Davies et al fails to disclose or fairly suggest the frame being positively or
2 neutrally buoyant in water. Marshall discloses a riser support system comprising of a riser (12A)
3 passing through a tubular frame with a guided buoy (32) attached to the tubular frame as depicted
4 in Fig. 2 (see col.3, lines 26-57).

5 Therefore, in view of Marshall, it would have been obvious to one of the ordinary skill in
6 the art at the time the invention was made to add the guided buoy to the tubular frame of Davies
7 et al. in order to increase the angular flexure that a given tubular frame can accommodate.

8
9 8. Claims 15-17 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over
10 Davies et al in view of Hale et al (US 4,422,801). The teachings of Davies et al have been
11 discussed above.

12 However, Davies et al fails to disclose or fairly suggest the gas service line entering at the
13 bottom of the buoyancy can. Hale et al discloses a buoyancy system for the underwater riser
14 comprising a buoyancy can (24), a gas/air service (13) line being connected to the bottom of the
15 buoyancy can as depicted in Fig. 3 (see Figs. 1-5; col.4, lines 44-68; col.5, lines 1-65).

16 Therefore, in view of Hale et al, it would have been obvious to one of the ordinary skill in
17 the art at the time the invention was made to efficiently provide the compressed gas or air, which
18 is lighter than the ambient pressure, to the buoyancy can by closing the top portion of the
19 buoyancy can.

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1 With respect to the radially arched shape of the bracing member, it would have been
2 obvious to one of ordinary skill in the art at time the invention was made to make the frame
3 structure in round/circular shape to decrease the impact to the frame from wave or current action.

4
5 *Response to Arguments*

6 9. Applicant's arguments with respect to claims 1 and 18 have been considered but are moot
7 in view of the new ground(s) of rejection.

8
9 *Allowable Subject Matter*

10 10. Claims 4-6 and 21-23 are objected to as being dependent upon a rejected base claim, but
11 would be allowable if rewritten in independent form including all of the limitations of the base
12 claim and any intervening claims.

13
14 *Conclusion*

15 11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office
16 action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is
17 reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18 A shortened statutory period for reply to this final action is set to expire THREE
19 MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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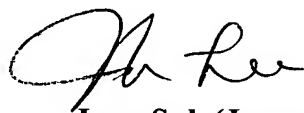
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1 MONTHS of the mailing date of this final action and the advisory action is not mailed until after
2 the end of the THREE-MONTH shortened statutory period, then the shortened statutory period
3 will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR
4 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,
5 will the statutory period for reply expire later than SIX MONTHS from the date of this final
6 action.

7 12. Any inquiry concerning this communication or earlier communications from the examiner
8 should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The
9 examiner can normally be reached between the hours of 6:30 AM to 3:00 PM Monday thru
10 Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,
11 Heather C. Shackelford, can be reached on (703) 308-2978. The fax phone number for this
12 Group is (703) 872-9306.

13 Any inquiry of a general nature or relating to the status of this application or proceeding
14 should be directed to the Group receptionist whose telephone number is (703) 308-2168.

15
16 J. Lee /jjl
17 November 15, 2003


18 **Jong-Suk (James) Lee**
19 **Primary Examiner**
20 **Art Unit 3673**

21
22 Attachment: Fig. 3 of Davies et al. (US 5,758,990)